SHARP SERVICE MANUAL

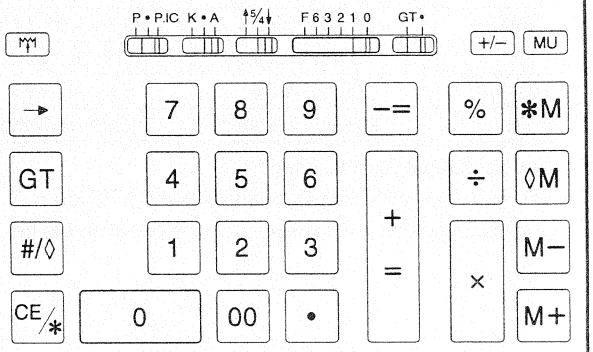
CODE: 00ZEL2607RSME

SHAR-02383

MODEL EL-1607R EL-2607R EL-2607RC

STANDARD FUNCTION		EL-1607R : 10 digits EL-2607R/2607RC : 12 digits	1 M
DISPLAY SECTION	EL-1607R:	1,234,567,890. M/E	
	EL-2607R/2607RC:	1,234,567,890.12 M/E	
	ELEMENT : Dispay tube	PARTS NAME : 13LT19G	
	NUMERAL : EL-1607R : 10 digits EL-2607R/2607RC : 12 digits	SYMBOL : 1 digit	
	12.0 / 4.8	M / •E	
LSI	Name : SC34205-153SP		
	Type : DIL		
	Pin : 52Pins		
POWER SUPPLY	AC : ○	DC : ×	

KEY LAYOUT



Note: The [00] key is only for the EL-1607R/2607R.
For the EL-2607RC, the [000] key is provided.

KEY SYSTEM : Plastic key top + Rubber spring

AC ADAPTOR	
RECHARTGEABLE BATTERY	
POWER CONSUMPTION	15.2 W, 126 mA (Y) 73 mA (V) 13.2 W (multi)
AUTO POWER OFF TIME	
MEMORY PROTECT	
DIMENSIONS (mm)	220 (W) 274 (D) 69 (H)
CALCULATIONS	

Four arithmetic calculation, Constant calculation, Power calculation, Chain calculation, Reciprocal calculation, % calculation, Add-on (discount) calculation.

PRINTER SECTION		
	MODEL NAME	EL-1607R : MP323F EL-2607R/2607RC : MP363F
	PRINTING SYSTEM	Flying system
	PRINTING CAPACITY	EL-1607R : 12 EL-2607R/2607RC : 16 digits
	CHARACTER DIMENSION	1.5 (W) 2.7 (H) mm
	INPUT BUFFER	12 stages
	PRINTING SPEED	Approx. 3 lines/sec
	PAPER FEED SPEED	Approx. 3.3 lines/sec
	PAPER RELEASE MECHANISM	Yes
	INK RIBBON	
	INK ROLLER	EA-741R
	INK LIFE	Approx. 150000 characters
	PAPER	Plain paper
	PAPER SIZE (Roll paper)	58^{+0}_{-1} mm (W), 80 mm in diameter (max.) DPAPR1004CSZZ

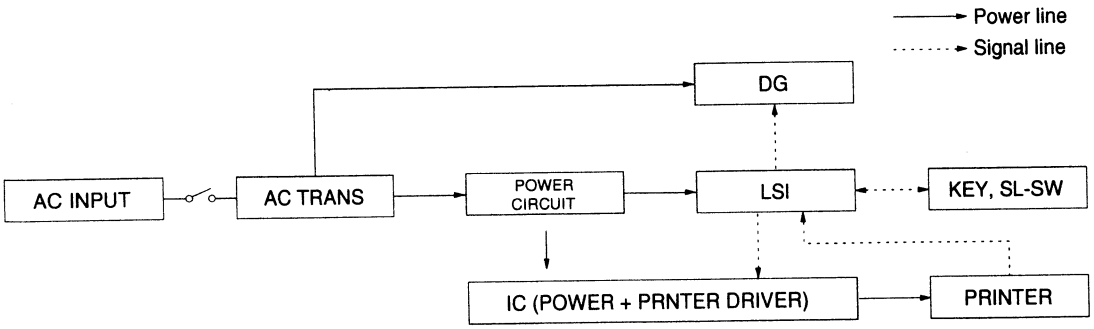
Parts marked with "⚠" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

2383 ZN

1. Block diagram



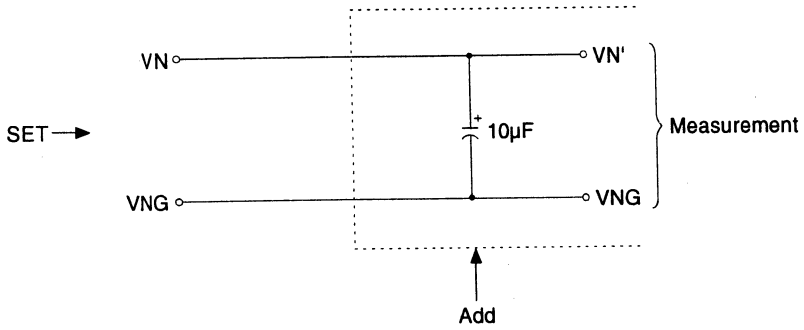
2. Power voltage

Measurement position	EL-1607R	EL-2607R/2607RC
F1 – F2	4.14Vac ~ 5.04Vac	4.14Vac ~ 5.04Vac
VNG – VDD	29.5V ~ 35.5V	29.5V ~ 35.5V
VSS – VP	5.3V ~ 5.9V	5.3V ~ 5.9V
(*1) VNG – VP	5.0V ~ 6.0V	5.0V ~ 6.0V
VNG – VN	(*2) 5.0V or higher	(*2) 5.0V or higher

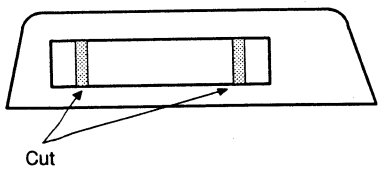
Measure at the rated AC input voltage.

(*1) : Measure VNG – VP voltage while holding down PF key.

(*2) : For measuring VNG – VN voltage, add the circuit shown below.



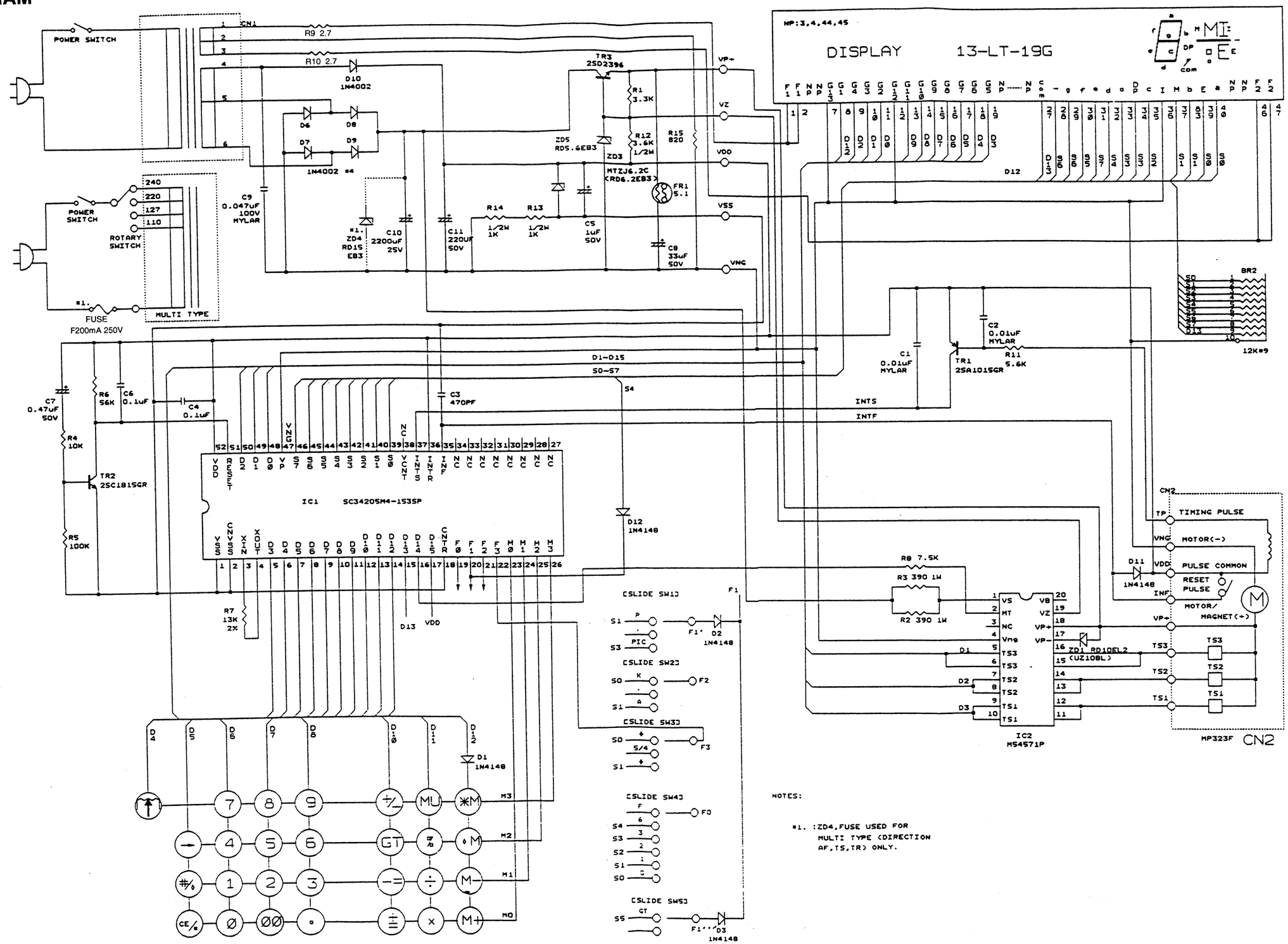
■ Note



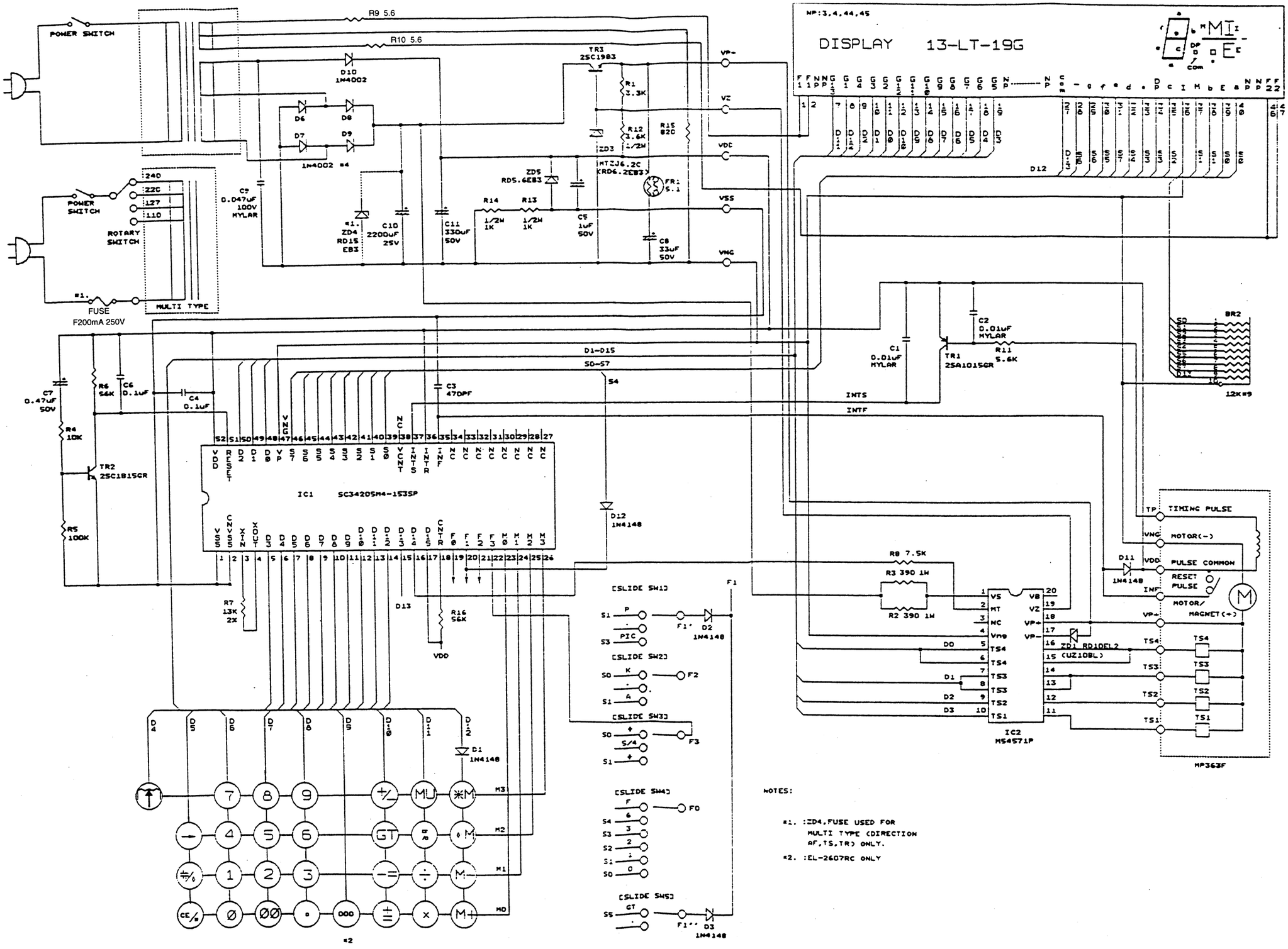
Please cut those two pillars when exchange upper case.

CIRCUIT DIAGRAM

1. EL-1607R

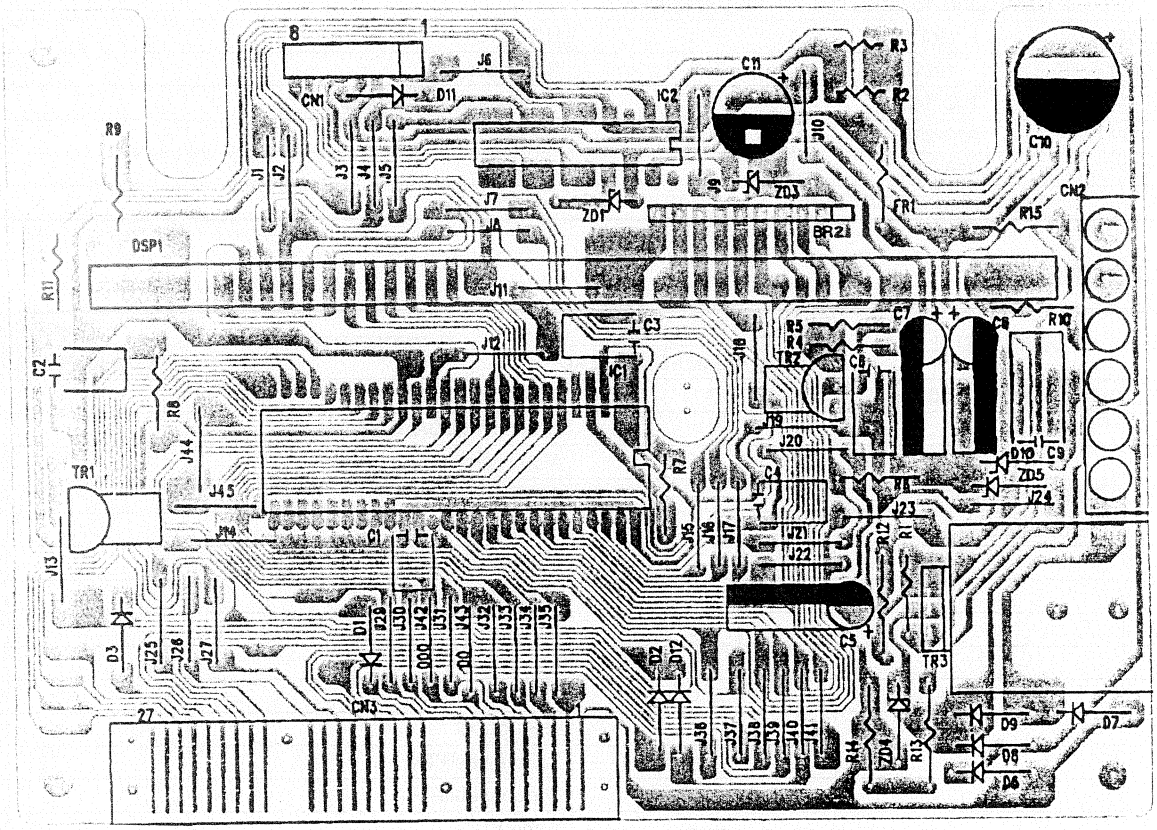


2. EL-2607R/2607RC

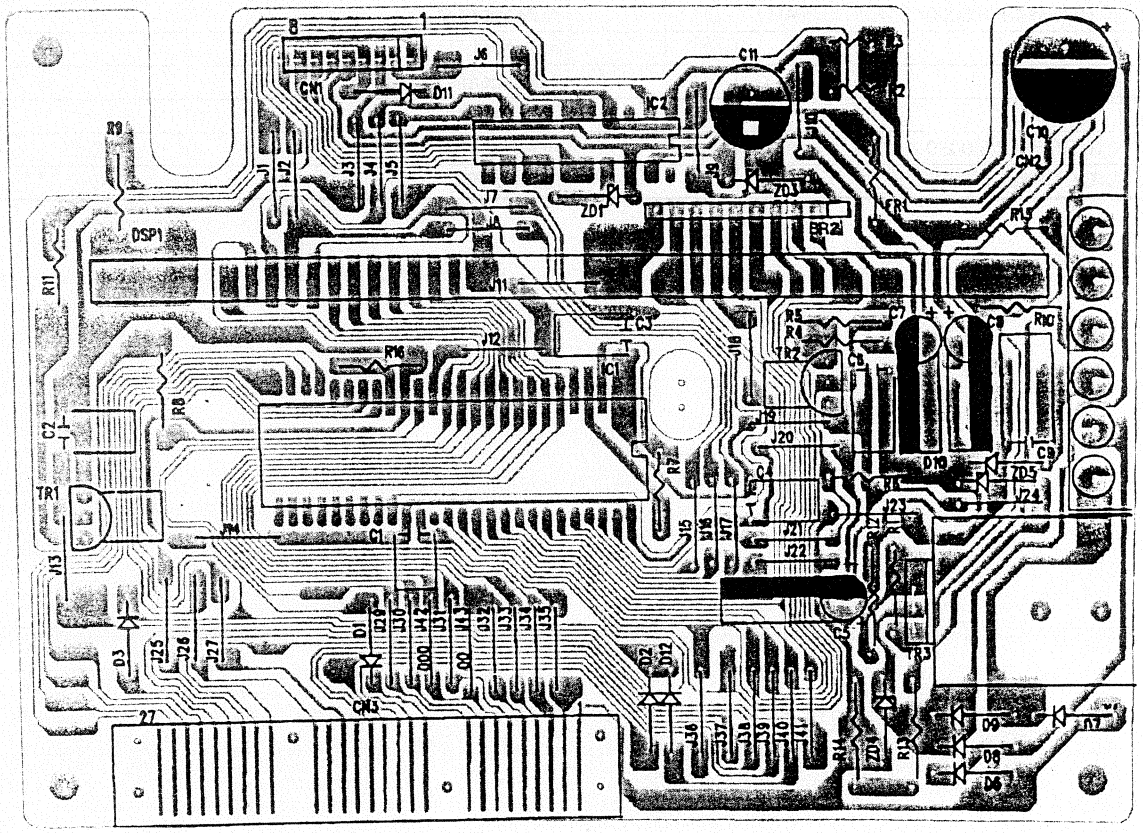


Power voltage measurement terminal

- EL-1607R



- EL-2607R/2607RC



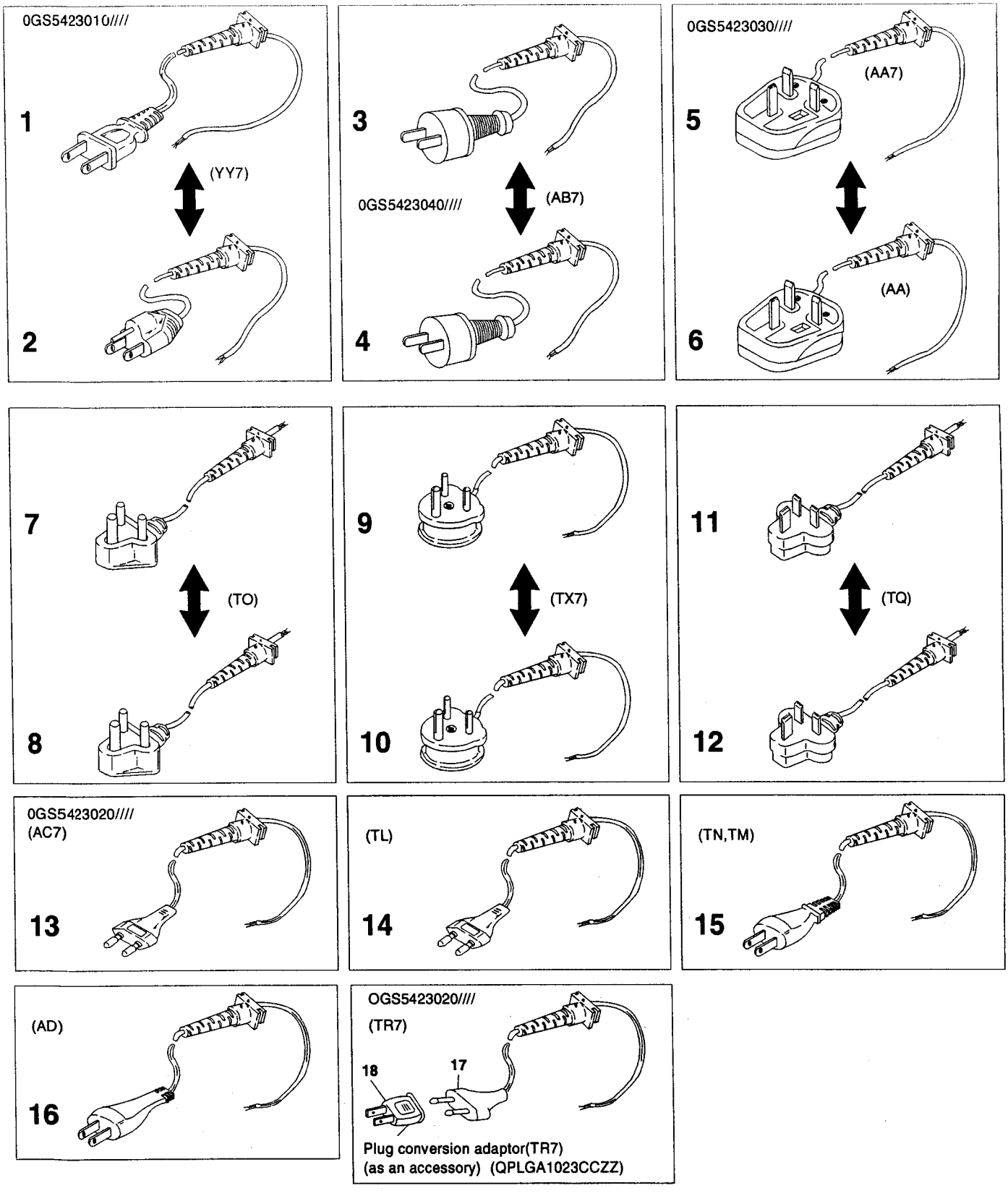
List of destinations (Destinations are determined by the name plate voltage and the plug shape.)

Destination	To identify destination		Major shipping country	Remarks
	Name plate voltage (V)	Plug shape No.		
U.S.A.	120	1	U.S.A.	
YY7	120	1	Canada	
AB7	230-240	4	Australia, New Zealand	
AA7	220-230	5	U.K.	
AC7	220-230	13	Germany	
TR7	Multi (110/127/220/240)	17, 18	Agent	

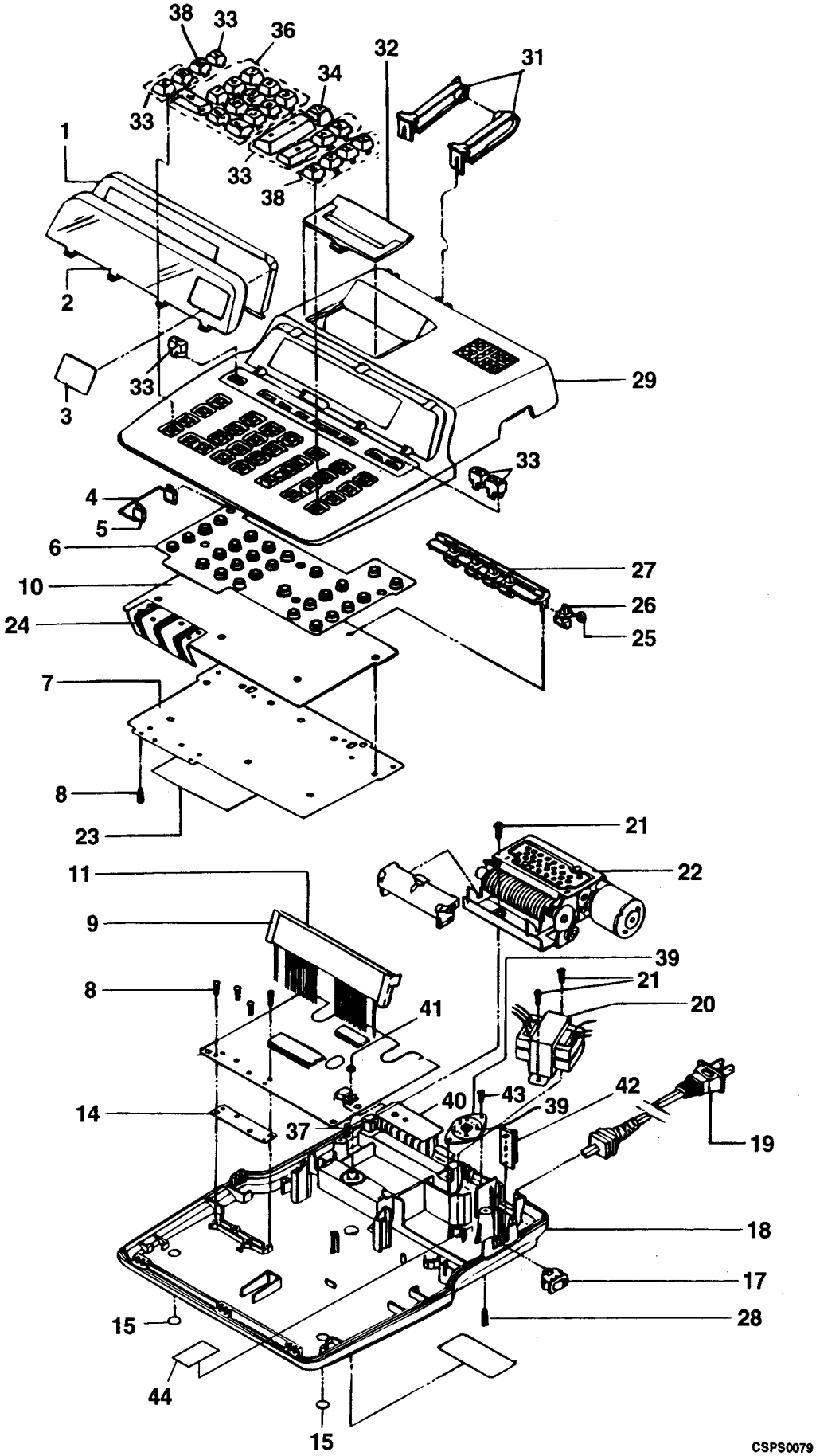
AC cord

NO.	PARTS CODE	PRICE RANK	Type of Lead		DESCRIPTION	MODEL NAME	
			2 LEAD	3 LEAD		EL-1607R/2607R	EL-2607RC
1	0GS5423010////	AN	○		AC cord YY7	○	
2				○	AC cord USA, CANADA		
3			○		AC cord AB		
4	0GS5423040////	AS		○	AC cord AB7	○	
5	0GS5423030////	AC	○		AC cord AA7	○	
6				○	Cord cable AA		
			—	—	Plug AA		
7			○		AC cord TO		
8				○	AC cord TO		
9			○		Cord cable TX7		
			—	—	Plug TX7		
			—	—	Cord bush TX7		
10				○	Cord cable TP		
			—	—	Plug TP		
			—	—	Cord bush TP		
11			○		AC cord TQ		
12				○	AC cord TQ		
13	0GS5423020////	AP	○		AC cord AC7	○	○
14			○		AC crd TL		
15			○		AC cord TN, TM		
16			○		AC cord AD		
17	0GS5423020////	AP	○		AC cord TR7	○	
18	QPLGA1023CCZZ	AG	—	—	Plug TR7	○	

Plug shape


0GS5423010////
1
(YY7)
2
3
0GS5423040////
(AB7)
4
0GS5423030////
(AA7)
5
(AA)
6
7
(TO)
8
9
(TX7)
10
11
(TQ)
12
0GS5423020////
(AC7)
13
(TL)
14
(TN,TM)
15
(AD)
16
OGS5423020////
(TR7)
18
17
Plug conversion adaptor(TR7)
(as an accessory) (QPLGA1023CCZZ)

1 Exteriors


38
33
36
32
31
34
33
1
33
38
2
33
3
29
33
4
5
6
27
10
26
24
25
7
8
23
21
11
22
9
39
21
8
20
41
42
14
40
43
39
37
19
18
17
15
28
44
15
CSPS0079

1 Exteriors

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	EL-1607R	EL-2607R	EL-2607RC
1	0GS6174990////	AE	N	D	Display mask (10digit)	○		
	0GS6175000////	AE	N	D	Display mask (12digit)		○	○
2	0GS6143170////	AK	N	D	Display window	○	○	○
3	0GS9430450////	AE	N	D	Model panel	○		
	0GS9430510////	AE	N	D	Model panel		○	
	0GS9430530////	AE	N	D	Model panel			○
4	0GS6344690////	AF	N	C	Key top bar (φ1.2/+=key)	○	○	○
5	0GS6173820////	AE		C	Key top bar holder (+=)	○	○	○
6	0GS5533080////	AN	N	C	Key rubber	○	○	○
7	0GS6174970////	AL	N	C	Key plate	○	○	○
8	XUBSD26P06000	AA		C	Screw (2.6 X 6)	○	○	○
9	0GS6313520////	AD		C	Prevention rubber	○	○	○
10	0GS6175020////	AR	N	C	Key sheet-L	○	○	○
11	0GS4510850////	BD		B	Display tube (13LT19G)	○	○	○
14	PGUMS1287CCZZ	AB		C	Cushion for key sheet	○	○	○
15	GLEGP1009CCZZ	AA		D	Rubber foot (φ8/t=1mm)	○	○	○
17	QSW-C9021QCZZ	AF		B	Seesaw switch (for power)	○	○	○
18	0GS6125790////	AX	N	D	Lower case [YY7,AB7]	○	○	
	0GS6125820////	AY	N	D	Lower case [TR7]	○	○	
	0GS6125810////	AZ	N	D	Lower case [AA7,AC7]	○	○	○
⚠ 19	0GS5423010////	AN		B	AC cord [YY7]	○	○	
⚠	0GS5423030////	AZ		B	AC cord [AA7]	○	○	
⚠	0GS5423040////	AS		B	AC cord [AB7]	○	○	
⚠	0GS5423020////	AP		B	AC cord [AC7,TR7]	○	○	
⚠	QPLGA1023CCZZ	AG		C	Plug [TR7]	○	○	
⚠ 20	0GS3121570////	AY	N	B	Transformer (120V) [YY7]	○	○	
⚠	0GS3121580////	AY	N	B	Transformer (230V) [AA7,AC7]	○	○	○
⚠	0GS3130010////	AY	N	B	Transformer (240V) [AB7]	○	○	
⚠	0GS3130020////	AY	N	B	Transformer (Multi) [TR7]	○	○	
21	LX-BZ1085CCZZ	AA		C	Screw (3 X 8)	○	○	○
22	Ki-ŌB1069CCZZ	BB		E	Printer (MP323F)(10digits)	○		
	Ki-ŌB1070CCZZ	BD		E	Printer (MP363F)(12digits)		○	○
23	0GS6240400////	AC	N	C	Maylar sheet	○	○	○
24	0GS6175030////	AG	N	C	Key sheet-S	○	○	○
25	0GS6322420////	AD	N	C	SL-SW roller	○	○	○
26	0GS6171030////	AC		C	SL-SW Knob	○	○	○
27	0GS6171045////	AF	N	C	SL-SW frame	○	○	○
28	XUPSD30P10000	AA		C	Screw (3 X 10)	○	○	○
29	0GS6115790////	AX	N	D	Upper case [YY7,AB7,TR7]	○	○	
	0GS6115820////	AY	N	D	Upper case [AA7,AC7]	○	○	○
31	0GS6500420////	AD		C	Paper holder-L/R	○	○	○
32	0GS6171065////	AE		C	Paper cutter	○	○	○
33	0GS6174980D///	AS	N	C	Key top (Other)	○	○	○
34	0GS6173890C///	AF	N	C	Key top (-=)	○	○	○
36	0GS6173950A///	AR		C	Key top (Number/00key)	○	○	
	0GS6175040////	AT	N	C	Key top (Number/000key)			○
37	XBPSD30P08000	AA		C	Screw (M3 X 8) (for Transistor)	○	○	○
38	0GS6173890B///	AK		C	Key top (Memory)	○	○	○
39	QSW-R1357CCZZ	AG		B	Multi switch (J-R1025) [TR7]	○	○	
40	0GS6250340////	AC		C	Heat sink	○	○	○
41	XNESD30-24000	AA		C	Nut (M3) (for Transistor)	○	○	○
42	0GS6174280////	AD		C	Fuse holder [TR7]	○	○	
43	XUPSD26P08000	AA		C	Screw (2.6 X 8) [TR7]	○	○	○
44	0GS9467435////	AA		D	Fuse label			○
101	QTANP1094CCZZ	AA		C	Appollo terminal (for Transformer-AC cord connection)	○	○	○
102	LBNDJ0004UCZZ	AA		C	Band (for AC cord,Tmsformer lead wire)	○	○	○
103	PTUBU1005CCZZ	AA		C	Insulation tube (φ6.5) [YY7]	○	○	
104	PTUBU1004CCZZ	AA		C	Insulation tube (φ4)	○	○	○

2 Packing material&Accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	EL-1607R	EL-2607R	EL-2607RC
1	0GS930805O////	AR	N	D	Packing case [YY7]	○		
	0GS930806O////	AR	N	D	Packing case [AA7,AB7,AC7,TR7]	○		
	0GS930803O////	AR	N	D	Packing case [YY7]		○	
	0GS930804O////	AR	N	D	Packing case [AA7,AB7,AC7,TR7]		○	○
2	0GS920453O////	AS	N	D	Instruction book(7cpuntry)	○	○	○
3	0GS918212Z////	AD		D	Warranty card [YY7]	○	○	
4	SSAKA3440QCZZ	AB		D	Vinyl bag (300 X 420mm) (for set)	○	○	○
5	SSAKA5004CCZZ	AA		D	Vinyl bag (100 X 300mm) (for AC cord)	○	○	○
6	SSAKA0302CCZZ	AA		D	Vinyl bag (for accessories)	○	○	○
7	0GS942631O////	AM	N	D	Pulp mold-L/R	○	○	○
8	UBNDA1008CCZZ	AA		C	AC-code band (120mm)	○	○	○
9	0GS946886O////	AC		D	Noise label [YY7]	○	○	
10	0GS946464O////	AC		D	Important label [AA7]	○	○	
11	TCAUA1213CCZZ	AA		D	V/S caution label B [TR7]	○	○	
12	TCAUA1210CCZZ	AB		D	V/S caution tag B [TR7]	○	○	
13	0GS946734S////	AB		D	C label			○
14	0GS943054O////	AD	N	D	Caution label (000key)			○
15	0GS943055O////	AA	N	D	Barcode label			○

3 PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	EL-1607R	EL-2607R	EL-2607RC
1	VHi342051S3P	AQ		B	IC (34205153SP) [IC1]	○	○	○
2	VHiM54571P/-1	AN		B	IC (M54571P) [IC2]	○	○	○
3	VS2SA1015-Y-1	AB		B	Transistor (2SA1015Y) [TR1]	○	○	○
4	VS2SC1815-GRC	AB		B	Transistor (2SC1815-GRC) [TR2]	○	○	○
5	VS2SD2396JK-1	AE		B	Transistor (2SD2396) [TR3]	○	○	○
6	VHERD10EL2/-1	AB		B	Zener diode (RD10EL2) [ZD1]	○	○	○
7	VHERD6.2EB3-1	AB		B	Zener diode (RD6.2EB3) [ZD3]	○	○	○
8	VHERD15EB3/-1	AB		B	Zener diode (RD15EB3) [ZD4]	○	○	
9	VHERD5.6EB3-1	AB		B	Zener diode (RD5.6EB3) [ZD5]	○	○	○
10	VHDDSS131//-1	AA		B	Diode (DSS131)(1N4148) [D1,2,3,11,12]	○	○	○
11	VHD10E1N///-1	AB		B	Diode (10E1N) [D6,7,8,9,10]	○	○	○
12	VCQYNU1HM103K	AA		C	Capacitor (50WV 0.010μF) [C1,2]	○	○	○
13	VCKYPU1HB471K	AA		C	Capacitor (50WV 470pF) [C3]	○	○	○
14	RC-ZZ1006CCZZ	AB		C	Capacitor (12WV 0.1μF) [C4,6]	○	○	○
15	VCEAGU1HW105M	AA		C	Capacitor (50WV 1μF) [C5]	○	○	○
16	VCEAGU1HW474M	AA		C	Capacitor (50WV 0.47μF) [C7]	○	○	○
17	VCEAGU1HW336M	AB		C	Capacitor (50WV 33μF) [C8]	○	○	○
18	VCQYNU1HM473K	AB		C	Capacitor (50WV 0.047μF) [C9]	○	○	○
19	VCEAZU1EW228M	AF		C	Capacitor (25WV 2200μF) [C10]	○	○	○
20	VCEAGU1HW227M	AC		C	Capacitor (50WV 220μF) [C11]	○		
21	VCEAGU1HW337M	AC		C	Capacitor (50WV 330μF) [C11]		○	○
22	RMPTC9123QCJB	AC		B	Block resistor (12kΩ X 9 ±5%) [BR2]	○	○	○
23	0GS194008I////	AE	N	B	Fuse resistor (1/4W 5.1Ω ±5%) [FR1]	○	○	○
24	VRD-HT2EY332J	AA		C	Resistor (1/4W 3.3KΩ ±5%) [R1]	○	○	○
25	VRS-HT3AA391J	AB		C	Resistor (1W 390Ω ±5%) [R2,3]	○	○	○
26	VRD-HT2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%) [R4]	○	○	○
27	VRD-HT2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%) [R5]	○	○	○
28	VRD-HT2EY563J	AA		C	Resistor (1/4W 56KΩ ±5%) [R6]	○	○	○
	VRD-HT2EY563J	AA		C	Resistor (1/4W 56KΩ ±5%) [R6,16]	○	○	○
29	VRD-HT2EY133G	AA		C	Resistor (1/4W 13KΩ ±2%) [R7]	○	○	○
30	VRD-HT2EY752J	AA		C	Resistor (1/4W 7.5KΩ ±5%) [R8]	○	○	○
31	VRD-HT2EY2R7J	AA		C	Resistor (1/4W 2.7Ω ±5%) [R9,10]	○		
	VRD-HT2EY5R6J	AA		C	Resistor (1/4W 5.6Ω ±5%) [R9,10]		○	○
32	VRD-HT2EY562J	AA		C	Resistor (1/4W 5.6KΩ ±5%) [R11]	○		
33	VRD-HT2HY362J	AA		C	Resistor (1/2W 3.6KΩ ±5%) [R12]		○	○
34	VRD-HT2HY102J	AA		C	Resistor (1/2W 1.0KΩ ±5%) [R13,14]	○	○	○
35	VRD-HT2EY821J	AA		C	Resistor (1/4W 820Ω ±5%) [R15]	○	○	○
⚠ 36	0GS361020O////	AF		A	Fuse (F200mA) (TR7) [FUSE]	○	○	
37	0GS617428O////	AD		C	Fuse holder (TR7)	○	○	
38	XBPSD30P08000	AA		C	Screw (M3 X 8) (for Transistor)	○	○	○
39	XNESD30-24000	AA		C	Nut (M3) (for Transistor)	○	○	○
40	0GS625034O////	AC		C	Heat sink	○	○	○